

Last Name: _____ First Name: _____
 Jonathan Valvano January 30, 2006, 1:00pm-1:05pm

Put your answers in the boxes. For questions 1-3 use the standard naming convention, and answer what is the type of the corresponding variable.

<p>Question 1) Voltage_Threshold Example usage <code>data = Voltage_Threshold;</code> A) private scope, temporary allocation (stack) B) public scope, temporary allocation (stack) C) private scope, permanent allocation (RAM) D) public scope, permanent allocation (RAM) E) none of the above</p>	<p>D) public scope, permanent allocation (RAM). This is a public variable accessible by all software in the system, and defined in the file <code>Voltage.h</code>.</p>
<p>Question 2) VoltageThreshold Example usage <code>data = VoltageThreshold;</code> A) private scope, temporary allocation (stack) B) public scope, temporary allocation (stack) C) private scope, permanent allocation (RAM) D) public scope, permanent allocation (RAM) E) none of the above</p>	<p>C) private scope, permanent allocation (RAM). This is a private variable accessible only in the module of this file, and defined in a code file (<code>something.c</code>).</p>
<p>Question 3) voltageThreshold Example usage <code>data = voltageThreshold;</code> A) private scope, temporary allocation (stack) B) public scope, temporary allocation (stack) C) private scope, permanent allocation (RAM) D) public scope, permanent allocation (RAM) E) none of the above</p>	<p>A) private scope, temporary allocation (stack). As you know, this variable might exist only in a register, but it is still temporary allocation, and accessible within the function.</p>
<p>Question 4. An unsigned fixed point system has values ranging from 0.0 to 100.0 with a resolution of 0.1. With which of the following data types should the software variables be allocated? A) unsigned char (too small) B) unsigned short C) unsigned long (too big) D) char (too small) E) short (signed) F) long (signed, too big) G) fixed (this doesn't exist) H) float (not appropriate for 6812) I) double (not appropriate for 6812)</p>	<p>B) unsigned short. The integer part of the number has values from 0 to 1000.</p>